

# NASA News

National Aeronautics and  
Space Administration

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For Release:

UPON RELEASE OF  
PRESIDENT'S BUDGET  
MESSAGE, NOON, EST  
FEBRUARY 8, 1982

## NASA BUDGET PRESS CONFERENCE

STATEMENT OF JAMES M. BEGGS

ADMINISTRATOR

FEBRUARY 6, 1982

HOLD FOR RELEASE AT NOON, EST, FEBRUARY 8, 1982

NOTE: This statement relates to the Fiscal Year 1983 Budget and is subject to the same conditions. There should be no premature release of this statement nor should any of its contents be paraphrased or alluded to in earlier stories. There is a total embargo on the Budget until Noon, EST, Feb. 8, 1982, which includes any and all references to any material in the Budget Appendix, or supporting statements.

I welcome this opportunity to comment on President Reagan's proposed budget for NASA for Fiscal Year 1983.

This budget was prepared in the light of the President's two major policy priorities: reviving the economy and strengthening the national security. Inherent in those priorities are the principles of fiscal restraint and greater attention to NASA activities with national security implications.

Given the tightly constrained fiscal environment in which this budget was prepared, I believe we did well. This budget represents the Administration's commitment to the evolution of the Space Shuttle into an operational system. It also provides for continuing progress in major NASA program areas.

The President is requesting just over \$6.6 billion for NASA for FY 1983. This represents an overall increase of \$673 million, or 11 percent, over the revised plan for FY 1982. Factoring in inflation, we will have a slight increase in purchasing power throughout this fiscal year.

The \$5.3 billion requested for research and development constitutes 81 percent, or the lion's share of the total request. More than half of this request, or \$3.5 billion, is for Space Transportation, which includes not only the Shuttle, and its related systems -- Spacelab and upper stages -- but also our stable of expendable launch vehicles -- the Scout, Centaur and Delta -- as well.

The \$3.5 billion would be divided about evenly between Shuttle production, system upgrading and performance augmentation on the one hand and Shuttle operations on the other. This is in contrast to previous years when funds for the latter lagged significantly below the former. The budget request reflects rapid movement into the operational phase, which we expect to begin in early Fiscal 1983 with the first operational flight.

The Shuttle's two orbital test flights were highly successful and proved that the concept of this extremely sophisticated, versatile and reusable space vehicle is technically sound. This budget is consistent with our immediate goal: to make the Shuttle the work horse of our civil and military efforts in space through the 1980s. The budget will support:

- A schedule of five planned launches including the first operational mission in FY 1983; 10 launches in FY 1984; and 13 launches in FY 1985;
- Continued progress in production of the third and fourth Shuttle orbiters, 103 and 104: (the second orbiter, 099, is scheduled for delivery during FY 1982);
- Provision of upper stages for planetary, geosynchronous and other special missions;
- Launch of the first Spacelab mission and continued procurement of the second Spacelab flight unit;
- Performance augmentation to reduce the weight of the solid rocket boosters and enhance the Shuttle's ascent performance for future NASA and national security missions;
- Preparation for a demonstration of the Shuttle's capability to retrieve an operational spacecraft -- the Solar Maximum Satellite -- for repair in orbit or return to Earth for refurbishment;
- The test, checkout and initial operation of the new Data Relay Satellite System (TDRSS).

In addition to increased emphasis on the Shuttle's operational capability, the FY 1983 budget will continue to support progress in aeronautical research and technology and in other vital areas of the space program.

Though some reductions have been made in the area of aeronautical research and technology, the FY 1983 request of \$232 million will provide for technology advances in all aeronautical disciplines, stressing those which have been judged most vital in maintaining U.S. leadership in civil and military aviation. The budget preserves a strong research and technology base in aerodynamics, propulsion, materials and structures, aircraft controls and guidance, and human factors. It also maintains the experimental facilities and skilled personnel dedicated to this goal at the NASA research centers.

With Congressional approval, this budget will also support vital ongoing NASA programs. It proposes:

- \$682 million for space science programs, emphasizing Spacelab missions; continued flight operations support anticipating Voyager's encounter with Uranus in 1986; developmental work on the Space Telescope, to be launched in 1985; on the Gamma Ray Observatory, to be launched in 1988; on the Galileo Jupiter Probe, to be launched in 1985; on the support systems and science instruments of the International Solar Polar Mission, a joint NASA-European Space Agency program; and on the physics and astronomy explorers and suborbital activities.
- \$320 million for important work in space applications missions, including the analysis of early data from Landsat-D's Thematic Mapper, a new generation Earth-scanning instrument which greatly improves our capability to study global resources; continued payload development projects for Spacelab, including materials processing; and analysis of early results from the International Search and Rescue Experiment, which will provide faster and more accurate data by satellite for locating aircraft or ships in distress.

The FY 1983 budget request also provides for continuing studies, investigations and definitions of mission options and advanced programs that will soon be possible because of the Shuttle's operational capability and flexibility. Possibilities under study include unmanned platforms in both low Earth orbit and geosynchronous orbit; a permanently manned facility, or space station, in low Earth orbit; and various elements of orbital test and transportation for their support.

I have given you brief highlights of our proposed budget for FY 1983. Like every other government agency we have had to reduce or delay some programs because of the urgent need to cut the rate of increase in Federal spending. But because of the importance to the nation of NASA's work and its spinoffs, we have come off well. And though there are no new starts, we are continuing with most of our ongoing activity in what we consider to be a balanced way.

Looking to the future, I am confident we will make the most of the opportunities the Shuttle affords as we open a magnificent new era of transportation, commerce and industrialization in space.

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1 NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

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7 FY 1983 BUDGET

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9 PRESS BRIEFING

10 WITH

11 JAMES M. BEGGS

12 ADMINISTRATOR

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18 ROOM 6104  
19 400 MARYLAND AVENUE, S.W.  
20 WASHINGTON, D. C.

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23 SATURDAY, FEBRUARY 6, 1982

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WASHINGTON, D.C. 20005

P R O C E E D I N G S

MR. BEGGS: Good afternoon. It is my pleasure to comment on the President's proposed budget for NASA for fiscal 1983.

First, a couple of points on the philosophy of the budget. The budget was prepared in light of the President's two major policy priorities -- reviving the economy and strengthening the national security.

Inherent in those priorities are the principles of fiscal restraint and greater attention to NASA activities with national security implications.

Given the tightly constrained fiscal environment in which this budget was prepared, I believe we did well. This budget represents the Administration's commitment to the evolution of the Space Shuttle into an operational system. It also provides for continuing progress in major NASA programs.

The President is requesting just over \$6.6 billion for NASA in fiscal year '83. This represents an overall increase of \$673 million, or 11 percent, over the revised plan for fiscal year 1982. Factoring in inflation, we will have a slight increase in purchasing power throughout this fiscal year.

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2 or \$3.5 billion, is for Space Transportation, which in-  
3 cludes not only the Shuttle, but also our stable of  
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14 The Shuttle's two orbital test flights were  
15 highly successful and proved that the concept of this  
16 extremely sophisticated, versatile and reusable space  
17 vehicle is technically sound.

18 This budget is consistent with our immediate  
19 goal -- to make the Shuttle the work horse of our civil  
20 and military efforts in space through the '80s and into  
21 the '90s.

22 This budget will support a schedule of five  
23 planned launches including the first operational mission  
24 in FY '83, 10 launches in FY '84, and 13 launches in FY  
25 '85; continued progress in production of the third and

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2 the second orbiter, 099, is scheduled for delivery during  
3 FY '82;

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5 geosynchronous and other special missions; launch of the  
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8 Performance augmentation to reduce the weight  
9 of the solid rocket boosters and enhance the Shuttle's  
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12 Preparation for a demonstration of the Shuttle's  
13 capability to retrieve an operational spacecraft -- the  
14 Solar Maximum Satellite -- for repair in orbit or return  
15 to Earth for refurbishment;

16 The test, checkout and initial operation of the  
17 new Data Relay Satellite System.

18 In addition to increased emphasis on the Shuttle's  
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1 balanced way.

2 Looking to the future, I am confident we will  
3 make the most of the opportunities the Shuttle affords  
4 as we open a magnificent new era of transportation,  
5 commerce and industrialization in space.

6 Thank you very much. That concludes my prepared  
7 remarks, and we are prepared to take questions.

8 MR. DUFF: Are there any remarks from the  
9 table before we start the questions? We can go right  
10 to questions.

11 MR. DOOLING: Dave Dooling, the Huntsville Times.

12 Mr. Beggs, what is going to be the upper stage  
13 for Galileo?

14 MR. BEGGS: The early plan is IUS.

15 MR. WALDROP: On that same topic, could you  
16 perhaps amplify why you decided not to go ahead with the  
17 Centaur development? Mitch Waldrop, Science.

18 MR. BEGGS: The discussions around that subject  
19 really revolved around the question of whether there  
20 were sufficient missions for the stage and, therefore,  
21 whether the amounts of money that were necessary in order  
22 to integrate and to develop the Centaur for Shuttle were  
23 warranted within a very limited mission envelope. And  
24 the decision was that there was not a sufficient number  
25 of missions for Centaur, and that the cost thereof would

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1 not be be cost-effective.

2 MR. ROSSITER: Al Rossiter, UPI. I understand  
3 there is no money in the budget for long-lead items, for  
4 the fifth orbiter. Does that mean that NASA no longer  
5 has that option to proceed with the fifth orbiter?

6 MR. BEGGS: No. The decision on 105 was to  
7 go back and re-examine the necessity and the need for 105.  
8 There is no specific funding identified, but we are going  
9 to look hard, in the coming year, at the possibility of  
10 bringing 105 along, after 104, with the potential perhaps  
11 of doing what we have been urged to do a couple of times  
12 by the Congress, in looking at a block buy concept. But  
13 there is, at the present time, while no specific funds  
14 are available at the present time, there is a certain  
15 amount of planning going on, to look to the possibility  
16 of buying 105.

17 MR. ROSSITER: When you're talking about block  
18 buying, are you talking about more than one orbiter at a  
19 time?

20 MR. BEGGS: Well, the idea would be to write  
21 a contract which would include a couple of orbiters, yes,  
22 but as you know, 104 is currently on contract, and we  
23 would have to then look to rewriting that contract, or  
24 modifying the contract in such a way as to perhaps get a  
25 better deal, or a better arrangement, in order to allow

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1 the manufacturer to do his planning in a more effective  
2 way.

3 MR. WALDROP: Mitch Waldrop, Science. Mr. Beggs,  
4 it's been said that if you don't make some effort to  
5 purchase 105 very shortly, like in six months, Rockwell's  
6 going to have to start shutting down production lines and  
7 it's going to be much more expensive to restart those.

8 What is your deadline, if you will, for making  
9 this decision?

10 MR. BEGGS: Well, our view is we have until  
11 late this year. I think I'd like to ask General Abrahamson  
12 to comment on that. He's been closest to this. As you  
13 know, Abe just took over the Office of Space Transporta-  
14 tion Systems, and he's been working on that problem very  
15 hard.

16 GENERAL ABRAHAMSON: We are looking at our study  
17 to show the advantages of the block buy and any possible  
18 cost reductions that might be available either to 104,  
19 to 104 with 105, and to the spares complement. We are  
20 looking for that study to be complete by the June time  
21 frame.

22 Now, this is a very complex problem, to look  
23 at any of these kinds of block buy advantages. I did it  
24 on the F-16, and it took us over a year of study, but  
25 the initial studies did show that, in fact, there was an

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1 advantage, at least for the F-16, and the key is at the  
2 subcontractor level.

3 So, we would hope that this initial study would  
4 give us a basis for any early allocation of funds, or to  
5 determine exactly what is the best schedule for a  
6 deliberate production rate by around the June time frame.

7 MR. COVAULT: Craig Covault, Aviation Week. Jim,  
8 to go back to the upper-stage question, does the answer  
9 to the earlier two questions mean, in effect, that the  
10 discussions between NASA and Air Force on maybe a smaller  
11 Centaur version have come to naught, or are you still  
12 talking?

13 MR. BEGGS: Well, put it this way, Craig, we  
14 haven't -- at this point, haven't written off the  
15 possibilities of Centaur and the Shuttle, it is just that  
16 in this budget, the question was, what is planned for  
17 Galileo in this budget, and it is IUS.

18 MR. COVAULT: But aside from this budget, it's  
19 still a possibility that you can fly Galileo on a smaller  
20 Centaur?

21 MR. BEGGS: Sure, there's always that possibility.

22 MR. EBERHART: Jon Eberhart, Science News.  
23 What's intended under this new budget plan, regarding the  
24 continued operations, data reduction, turning off of  
25 Pioneer 6 through 9, Pioneer 10 and 11, Pioneer Venus?

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1 MR. BEGGS: I think I'll let Ed Smiley come up  
2 here and talk to that point, if I can find him. Wait a  
3 minute. On second thought, on mature consideration, we  
4 will let Andy Stofan reply.

5 MR. STOFAN: In our mission output, operations  
6 and data analysis budget in the planetary program, there  
7 is money included for the operation of Voyager for the  
8 Uranus encounter, and the beginning money going in for  
9 the Galileo.

10 Besides that, it appears that the budget is  
11 such that we will have to give serious consideration to  
12 not tracking the Pioneer spacecraft in the future.

13 MR. COVAULT: Is there a technically meaningful  
14 term that has something to do with turning them off, or  
15 is this a matter of stopping data reduction and running  
16 down links and whether you listen?

17 MR. STOFAN: Right now, the extent of how far  
18 we'll go is under study with the amount of money that we  
19 have. We are looking at more economical ways to track  
20 the Pioneers, perhaps picking out one or two of them that  
21 are returning the most useful data. But, at the present  
22 time, it looks like we're going to have to take some  
23 action, as a minimum, to curtail the activity.

24 The worst scenario would be that we would have  
25 to stop taking the scientific data and analyzing it, but

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1 we would most likely continue -- Ed Smiley would continue  
2 to actually track the spacecraft.

3 MR. COVAULT: Craig Covault, again. In the aero  
4 program, Jim, it looks like you lost about five areas  
5 and about \$35 million worth of work, compared to fiscal  
6 '82.

7 Can you tell me what the basic original request  
8 for aeronautics was compared to what you got, and why  
9 the areas were cut that were cut?

10 MR. BEGGS: Well, let me address the latter  
11 part of your question first. The cuts were primarily in  
12 the areas where we made the decision that demonstration  
13 programs, or programs which were primarily directed towards  
14 demonstration, could be assumed by the industry.

15 In short, it was a decision based on a policy  
16 decision to encourage the industry to take over that part  
17 of the work which was basically hardware, or which was  
18 leading to hardware.

19 And as a result, some of the systems work and  
20 some demonstration work was either curtailed or run out,  
21 and we anticipated no additional work in those areas.  
22 That was kind of the philosophy.

23 The amounts that were originally put in were  
24 in the order of \$370 million. Does that answer the  
25 question?

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1 MR. WALDROP: Mitch Waldrop, Science. I have  
2 a quick question about the Solar Polar Mission. The new  
3 money in this budget, is that going to a new American  
4 spacecraft, or just the operations of the European space-  
5 craft?

6 MR. BEGGS: In ISPM?

7 MR. WALDROP: Yes.

8 MR. BEGGS: Just the European spacecraft.  
9 There was the addition of a kick stage to that total,  
10 which was additional money, but that was necessary in  
11 order to accomplish the mission.

12 MR. WALDROP: Within the research and analysis  
13 budget, one of the major effects, I understand, is that  
14 you are going to shut down the infrared telescope facility  
15 in Hawaii, which is a brand new telescope.

16 Could you amplify on the reasoning behind that,  
17 please?

18 MR. BEGGS: It's not our intent -- it is true  
19 that the amounts in the runout assume that NASA will  
20 not be funding that facility, but the assumption is that  
21 it will be picked up by NSF.

22 MR. WALDROP: Do you have any indication that  
23 will be the case?

24 MR. BEGGS: Well, I guess I have not talked  
25 directly to anyone over there, but my understanding is,

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1 yes, that they will pick it up.

2 MR. DOOLING: Dave Dooling, the Huntsville Times.  
3 What impact do you expect that cutbacks in aeronautics  
4 research and death of the technology transfer program will  
5 have on the President's plan for economic recovery?

6 MR. BEGGS: Ha.

7 (Laughter.)

8 MR. BEGGS: That's a little bit like the one,  
9 when did I stop beating my wife? Just last night.

10 (Laughter.)

11 MR. BEGGS: We still have a program in technology  
12 transfer and utilization, and I believe that that will  
13 continue. It is true that we've cut back on the amounts  
14 in those programs but, you know, a lot of the transfer  
15 and tech utilization activities that have taken place in  
16 the past have resulted from the folks who are interested  
17 in that technology spending the time and the effort and  
18 the money to come into the NASA centers and get it for  
19 themselves. We expect that to continue.

20 It is also anticipated that if the users of  
21 this particular function really want it, that they will  
22 pay for it. And I guess there is an assumption that there  
23 would be a user charge or a user arrangement set up, but  
24 my view is that we will be able to handle this within the  
25 budget.

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1           It's like everything else, you'd like to do  
2 more, but within the budget levels we had, we came out  
3 where we came out, and there still will be an office at  
4 each one of the centers, and the information will still  
5 be available, and we still intend to continue much of the  
6 effort in encouraging the industry to come in and listen  
7 to us and join with us in joint meetings where we can  
8 pass this on to them.

9           MR. COVAULT: Craig Covault. Probably more  
10 appropriate for Tom Newman. Could you list new starts  
11 you requested but failed to get, the larger ones, and  
12 also the initial budget request figure for the whole  
13 agency, compared to the 6.6 or so that you got?

14          MR. BEGGS: We'll let Tom wrestle with that.

15          MR. NEWMAN: I assume your question means the  
16 original request to OMB in September. Is that what  
17 you're asking?

18          MR. COVAULT: Yes, I guess that's the most  
19 appropriate.

20          MR. NEWMAN: We requested \$7 billion, I believe  
21 it was -- it was about \$7.6 billion to OMB. The major  
22 items that we requested in that larger figure that were  
23 not included in the budget that's before you -- well, we  
24 had funding in there planned at that time, for the fifth  
25 orbiter, and that was deleted.

1           We had proposed to initiate the 20-30 gigahertz  
2   communications satellites, and that funding was deleted.  
3   We had a mission that was not a new start, but would have  
4   been in '82, the VOIR, and that was deleted to the budget  
5   following from that.

6           There were a number of systems technology  
7   activities in aeronautics, such as the next phase of the  
8   advanced turboprop on large composite structures -- I'm  
9   trying to think of some more -- there were several in  
10   aeronautics that were deleted. I believe those were  
11   the new initiatives.

12           MS. FREEMAN: Marsha Freeman, Fusion Magazine.  
13   There has been a lot of concern leading up to today, I  
14   guess, of the manpower or possible layoff situations at  
15   a number of NASA labs, particularly JPL and Lewis Lab.

16           How does this funding level for '83 affect that?  
17   In other words, do you expect to still have to have a lot  
18   of people let go?

19           MR. BEGGS: I think I'll let Dr. Mark respond  
20   to that. By now, you know how this works -- I answer the  
21   easy ones and they answer the hard ones.

22           DR. MARK: We expect to come down in the next  
23   two years, a total of about 600 -- somewhat over 650  
24   equivalent manyears -- that's full-time equivalent --  
25   220 will be fiscal year '82, and 400-and-some will be in

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1 fiscal '83.

2 Incidentally, that will not require reductions-  
3 in-force. That is, one could take that by attrition, but  
4 I should point out that we may, in certain installations,  
5 do a reduction-in-force, use the reduction-in-force pro-  
6 cedures to preserve certain skill mixes that we think are  
7 important.

8 In other words, if you let this go by attrition,  
9 which we could do, then you would lose people that you  
10 would want to keep, and so we may have to run reductions-  
11 in-forces.

12 There are no plans to close any installations,  
13 as somebody implied, and with respect to JPL, we are  
14 working hard to encourage the laboratory to take on  
15 missions that are appropriate to the skills there and  
16 space operations by other federal agencies.

17 MR. BEGGS: Those numbers, incidentally, specific  
18 numbers, are on page 8 of your handout.

19 MR. PAYNE: Just a quick followup on what Dr.  
20 Mark said on finding other work for JPL? Do you mean  
21 military work?

22 DR. MARK: Could be.

23 MR. PAYNE: Moving on to tracking and data  
24 acquisitions in that sector, is this first outlay on the  
25 TDRSS? Does that -- could you tell me what the \$61 million

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1 is, and is that the start of the payment to Western  
2 Union on the use of that?

3 MR. BEGGS: Yes, it is.

4 MR. PAYNE: When is it going operational?

5 MR. BEGGS: To Spacecom, the consortium that  
6 is there, but it is the start of those payments.

7 MR. PAYNE: It is the start of your lease on  
8 that?

9 MR. BEGGS: Yes.

10 MR. ROSSITER: Al Rossiter, UPI. The agency  
11 has been seeking funds for several years for VOIR, un-  
12 successfully. Do you expect to continue to request money  
13 next year, for instance, for VOIR, or is the project  
14 pretty well dead?

15 MR. BEGGS: Let me respond briefly, and then  
16 I will let Hans add to it. The budget that you have  
17 before you, and the runouts thereof, assume a runout of  
18 the current series of programs -- that is, the budget  
19 that's there for '83 is run out assuming no new starts,  
20 which is a little bit different than what it has been in  
21 past years.

22 In past years, there was a new start planning  
23 wedge put in, and that's not there now, but it was done  
24 -- those decisions were made on the basis that the budget  
25 does not prejudice our coming in and discussing new starts

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1 in the future.

2 Whether VOIR or something else would be our  
3 choice for that, I think, depends on where our planning  
4 goes from here. But it is not intended -- that is, the  
5 budget figures are not intended to preclude any specific  
6 area, such as VOIR. Do you want to add to that?

7 DR. MARK: Yes, let me add a little bit to that.  
8 The VOIR mission was a rather big project, assuming an  
9 orbiting vehicle with a synthetic aperture radar for the  
10 collection of images, and priced out in the half-billion  
11 dollar range.

12 What we have asked the scientific community  
13 to do, and they have responded very well to this and, as  
14 a matter of fact, some of them have taken the initiative  
15 to push us in that direction, is to look at a less expen-  
16 sive way to do similar things.

17 Just the other day, I had a very interesting  
18 session with some people who are proposing to do the same  
19 work, the same job on a VOIR with a real aperture radar  
20 system, which is much less expensive because it doesn't  
21 require the high data rate that a synthetic aperture does,  
22 where one can do substantially the same thing for roughly  
23 \$200 million.

24 So, one of the things that the constrained budget  
25 does is that it forces people to think of perhaps better

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1 and less expensive ways to do the same job, and the  
2 general idea is that we have two committees now studying  
3 ways to do planetary missions for less money -- one under  
4 Noel Hinners and the other one under Gene Levy, I guess,  
5 and we expect them both to come up with new ideas.

6 MS. HOYT: Diana Hoyt, office of Congressman  
7 Dan Akaka. I'd like to get back just for one moment to  
8 the question of the IRTF facility on Mauna Kea. Is it  
9 true, in fact, that NASA's decision to eliminate funding  
10 for this facility reflects a larger policy decision in  
11 that NASA has concurred with the Administration's sugges-  
12 tion that NASA no longer continue to fund operating costs  
13 for groundbased facilities?

14 MR. BEGGS: No, I wouldn't draw that conclusion.

15 MR. DEATTY: Kelly Beatty, from Sky and Tele-  
16 scope. Dr. Mark, the ongoing policy assessment, through  
17 the Office of Science and Technology Policy, headed by  
18 Vic Reese, I have been told that that committee, that  
19 policy review committee, has been intimately involved in  
20 the crafting of the fiscal '83 budget, and perhaps you  
21 could tell us the specific areas in which they have an  
22 input on what we see before us today?

23 DR. MARK: The committee that is establishing  
24 new policies in several areas has not, in fact, been  
25 involved in the crafting of the fiscal '83 budget, as you

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1 put it.

2 People in Dr. Keyworth's office, of course, have  
3 been involved because -- as members of the White House  
4 staff, but it is important to recognize that those two  
5 activities are quite separate.

6 In terms of the involvement of Dr. Keyworth,  
7 he has provided, as his job requires by statute, advice  
8 to the President on matters of science and technology,  
9 and he has done so in the case of our budget.

10 MR. DOOLING: Dave Dooling, Huntsville Times.  
11 There is a healthy increase in there for the advance  
12 program planning. Does this indicate some intense study  
13 work in fiscal '83, following definition of the permanent  
14 presence in space this summer?

15 MR. BEGGS: A short answer is, yes, it does  
16 anticipate that.

17 MR. JOYCE: Chris Joyce, New Science Magazine.  
18 Have you made a decision on whether to go ahead with the  
19 Solar Max Rescue using the Shuttle and, if so, when, and  
20 how much will it cost?

21 MR. BEGGS: I'm sorry, I didn't hear that.

22 MR. JOYCE: The rescue of the Solar Maximum  
23 Mission. Have you decided --

24 MR. BEGGS: Yes, from our part, we have made  
25 a decision that we would like to run that mission. Now,

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1 in order to get it started, we would have to spend some  
2 money in fiscal year '82, and to do that, we will have  
3 to request of our congressional committees the right to  
4 reprogram some money. That has not yet been accomplished.

5 MR. JOYCE: Anything from OMB on that? Have  
6 they given their approval on that?

7 MR. BEGGS: Yes. The answer is, yes.

8 MR. BENEDICT: Howard Benedict, AP. Mr. Beggs, you've  
9 talked often, you've said often that a space operation  
10 center should be a major goal of this country and of  
11 NASA.

12 Has President Reagan or Dr. Keyworth, or anyone  
13 in the White House, given you any encouragement that the  
14 President might support such a project sometime in the  
15 future?

16 MR. BEGGS: We have been given enough encourage-  
17 ment that we have proceeded with a study to look carefully  
18 at that. Like everything else in a program of that  
19 magnitude and a decision of that size, no one is going  
20 to agree beforehand that they will give us a blank check  
21 to do that kind program because they don't know what it's  
22 going to look like until actually we put together a plan  
23 for them, and we are in the process of putting a plan  
24 together.

25 MS. REALES: Patty Reales, Satellite Week.

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1 Given the fact that the Chinese are planning on launching  
2 a 30-20 gigahertz satellite system in the future, either  
3 summer or before, what is the progress of our own -- and  
4 that there's no money here for the 30-20 gigahertz program,  
5 where does it all stand for the future?

6 MR. BEGGS: There is money for the technology,  
7 the black box development and the basic push on the  
8 technology end of the 30-20 range will continue. The  
9 thing that was eliminated was the flying of a satellite.

10 And, again, the philosophy or the policy behind  
11 that is that once that technology is developed and is  
12 presented to the industry, if the industry wants to pro-  
13 ceed toward the implementation of a satellite, they should  
14 come in and make a proposal to us, or to the government,  
15 and pay for it.

16 MR. SILVERSTONE: Ken Silverstone, Defense  
17 Daily. How close are you to coming to finalize a design  
18 for either the manned Space Station or the unmanned plat-  
19 form, and is there any plan to go ahead with the unmanned  
20 system first, and could you go ahead as soon as '84?

21 MR. BEGGS: Phil, do you want to talk to that?  
22 Phil Culbertson, who has been heading this study.

23 MR. CULBERTSON: As you know, we've been  
24 studying both the manned and the unmanned concepts for an  
25 awful long time. We are taking the position that we could

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1 start in '84, if the decision were made that we wanted  
2 to move ahead that rapidly.

3 As to the question, is it going to be manned  
4 or unmanned at the beginning, that decision has not been  
5 made. We are looking very carefully at both concepts.

6 QUESTION: Dr. Mark, I'm afraid I must press.  
7 This is the second conference I've been to today, with  
8 no OSTP representative.

9 If Dr. Keyworth was, in fact, intimately in-  
10 volved in your budget-setting process, what were the  
11 specific areas in which he had input?

12 DR. MARK: Well, Dr. Keyworth, for example, was  
13 present at the meetings that we had with senior members  
14 of the White House staff in the final budget deliberations,  
15 and if I remember correctly, he participated actively in  
16 the discussions both on the subject of aeronautics and  
17 on the subject of space science.

18 MR. DAVID: Leonard David, with the National  
19 Space Institute. Listening to your remarks at the beginn-  
20 ing, Mr. Beggs, should NASA acquire more projects with  
21 national security implications, to ensure itself larger  
22 budgets in the future?

23 MR. BEGGS: That's not our job. It has been  
24 our job, for NASA and its predecessor agencies in the  
25 last 60-odd years, to support the military, and we've done

1 that in a very effective way, I believe, and it has, I  
2 think, been a very productive and profitable partnership,  
3 since much of the technology that we do is of use to the  
4 DOD in opening up new concepts and new ideas for the use  
5 of aeronautics in space, and for the pursuit of whatever  
6 technology they need to solve problems.

7 I personally believe, and this is my strong  
8 belief from my experience on both sides of the table, both  
9 in industry and in government, that a program that we  
10 have conducted, which is largely in the open and largely  
11 pursuing a broad range of technology, serves both the  
12 DOD and the nation best.

13 I'll give you one example. Just before I left  
14 the General Dynamics Company, we were putting a new wing  
15 on the F-16. It was a double-Delta, or what NASA people  
16 like to refer to as a cranked arrow wing design.

17 That wing came out of the SST, Supersonic  
18 Transport program. It just happened that the first  
19 application was on a military aircraft. And I think  
20 that kind of thing is very important because, when you  
21 do advance technology, advance research, you don't know  
22 where the applications are going to come.

23 So, I would be, again, going after specific  
24 mission-oriented or even specifically directly related  
25 kinds of research and technology to defense kinds of

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1 applications and opt for the more broader based program  
2 that we've conducted for many, many years.

3 MR. WASHBURN: Mark Washburn, freelance. | The  
4 Halley's Comet Mission has already gone by the boards,  
5 of course, but is there any money in the budget for some  
6 American response to this visitation in 1986, perhaps  
7 in support of European or Japanese efforts?

8 MR. BEGGS: We do have money in here for the  
9 Halley's watch activity, and we will be gathering the  
10 data, and that program remains in our plans.

11 DR. MARK: Let me add just one point to that.  
12 There are, in the plans, I think, two Shuttle flights  
13 which will have instruments on them to look at Halley's  
14 Comet from above the atmosphere, and we expect those  
15 instruments to yield quite unique data.

16 MR. WALDROP: It's become clear to all of us  
17 that over the last several years, and especially this last  
18 year, that planetary science gone in, shall we call it  
19 retrenchment?

20 One of the rationales for that was that, well,  
21 we've been to all the planets now, all the major planets;  
22 let's look at the data we already have. Now we see that  
23 the research and analysis budget has been cut back very  
24 drastically, for examining this data, and I wonder if you  
25 would care to comment on that? Mitch Waldrop, Science

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1 Magazine.

2 MR. BEGGS: Well, we have, as you say, done an  
3 awful lot in the last ten years. There is no intent  
4 on the part of this budget, to stop the activities. we've  
5 tried to fit them in as best we can, into this budget.

6 I think what you see reflected there is perhaps  
7 some reduction in what has gone before, but as Dr. Mark  
8 responded to an earlier question, there is no intent to  
9 stop the planetary work. The intent, with this budget,  
10 was to put the community on notice that we would like them  
11 to restudy the future and, if possible, tell us how to do  
12 future missions and future analysis and future research  
13 in a different and perhaps less expensive way.

14 MR. BEATTY: Kelly Beatty. Mr. Beggs, if you've  
15 gotten enough encouragement from the White House to pro-  
16 ceed with the detailed study of the SOC, have you also  
17 received enough encouragement to proceed with detailed  
18 studies of transferring the operation of the Shuttle  
19 program to a non-NASA agency?

20 MR. BEGGS: Well, that's something that has  
21 been, I guess if not encouraged, at least given considera-  
22 tion for a long, long time. This agency, as you know,  
23 has never been a major operating agency and, as we move  
24 into the operational phase of Shuttle, it is a major  
25 operational responsibility, and the agency has looked at

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1 that in the past and will continue to look at it in the  
2 future, as to whether there are ways of passing the  
3 responsibility off to someone else, either another govern-  
4 ment, or a quasi-government, or a private sector kind of  
5 operator.

6 I don't think, at this time, there is -- I can't  
7 say there is any encouragement. There is no discouragement  
8 of that idea that's come out of the White House.  
9 The various and sundry proposals that I've read about  
10 are very sketchy in their outlines, and I guess my feeling  
11 is we've got to get a lot firmer and do a lot more de-  
12 tailed work to find out how that would happen.

13 MR. EBERHART: Jon Eberhart, Science News.  
14 You've spoken a little about the reduction in research  
15 and analysis funding. Is there any -- part of the  
16 research and analysis funding, in the case of Jupiter,  
17 for instance, has come out of the project's own funds,  
18 the Jupiter data analysis program, I gather, is a part  
19 of the Voyager project itself, an augmentation to that  
20 rather than something in the standard research and  
21 analysis line item.

22 Is there any augmentation of that provision  
23 at all, for the study of the Saturn data, in the Voyager  
24 budget?

25 MR. BEGGS: Andy, do you want to -- you don't

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1 want to. The answer is, no.

2 MR. DIXON: David Dixon, A question about the  
3 ISPM mission. Has there been any attempt within the  
4 budget to cushion the impact of last year's cut of the  
5 American spacecraft to the mission, or do you believe it  
6 is essentially the Europeans' responsibility to pick up  
7 the pieces and put a valid mission together?

8 MR. BEGGS: I'm not sure I understand completely  
9 the basis of the question. As you know, our decision was  
10 to eliminate the American spacecraft, but we did agree,  
11 and continue to fund, the cooperative effort that we've  
12 had in that program.

13 We're providing instruments, technical support,  
14 the launch vehicle, and whatever that our European  
15 colleagues desire.

16 MR. DIXON: But I was wondering whether there  
17 was any extra instrumentation on any extra facility  
18 within the budget that might not have been there according  
19 to the original plans, but had been put there to cushion  
20 the cuts.

21 MR. BEGGS: No, there is not.

22 MR. SILVERSTONE: Ken Silverstone. You have  
23 \$60 million in the budget for Shuttle thrust augmentation.  
24 Is this money for the new case for the solid rocket motor?  
25 Will that give you -- how much added payload will that

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1 give you and will that be sufficient, or will you need  
2 something else?

3 MR. BEGGS: The answer is, yes, it is for that,  
4 and let me let Gen. Abrahamson respond to that in detail.

5 GENERAL ABRAHAMSON: It is for the filament wound  
6 case which, of course, is a lighter propellant system  
7 for the SRB, and we expect about 5500 pounds if we are  
8 successful at all in that development effort of augmenta-  
9 tion.

10 MR. SILVERSTONE: Would there be some additional  
11 augmentation required, like operating the engines, the  
12 main engines. Is that still being considered, or will  
13 that be considered later?

14 GENERAL ABRAHAMSON: Well, we are now in the  
15 process of certifying the main engines to the 109 percent  
16 level, and that is going in a very, very successful manner.

17 MR. SILVERSTONE: Let me just ask about one  
18 other subject. There's been quite a few studies about a  
19 derivative vehicle for the Space Shuttle. Is that a  
20 strong possibility, would you say, at this point, that  
21 we will be going to that sometime in the future, or is  
22 that just another step?

23 MR. BEGGS: Derivative, in the sense of a new  
24 or second generation vehicle?

25 MR. SILVERSTONE: An unmanned vehicle, using

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1 the components.

2 MR. BEGGS: Oh. There are continuing studies  
3 on a possible expendable or unmanned use of the Shuttle's  
4 engines, yes, but I can't outline any specific program  
5 at the present time.

6 MS. FREEMAN: Marsha Freeman, from Fusion.  
7 In hearings over that last few months, especially on the  
8 House side, Dr. Keyworth actually has indicated that he  
9 didn't think there was actually enough money in the budget  
10 to do various things, including Galileo, and likewise, of  
11 course, Mr. Stockman made a number of statements from the  
12 time he came into OMB, on cutting the NASA very severely.

13 Although you really don't have new starts and  
14 many of the things that are necessary, you certainly have  
15 come out with an increase, and a significant one. What  
16 would you contribute your success to?

17 (Laughter.)

18 MR. BEGGS: Talent.

19 (Laughter and applause.)

20 MS. FREEMAN: I'm not familiar with the way  
21 NASA's mail runs, but I imagine that there must have been  
22 a great deal of public support for the program. Did that  
23 help you in some visible way?

24 MR. BEGGS: There has been an enormous amount  
25 of both public and private support, and it has, I think,

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1 been gratifying for everyone in the agency, to see the  
2 degree that this program is appreciated, not only among  
3 our more closely related constituencies but in the  
4 general public, at large.

5 There have been lots of letters from private  
6 citizens. There have been lots of inputs made, and it's  
7 a very heartwarming and gratifying response, and we are  
8 very pleased with it.

9 MR. BENSON: Johan Benson, Astronautics and  
10 Aeronautics Magazine. Admiral Inman, Deputy Director  
11 of the CIA, has stated that there has been a massive  
12 hemorrhaging of U.S. technology to the Soviet Union, and  
13 this has contributed markedly to the development of  
14 Soviet military technology in the last decade.

15 Will there be any measures taken by NASA, to  
16 control the release of NASA developed technology to  
17 other countries?

18 MR. BEGGS: Beyond what we have done in the  
19 past, we are not anticipating any large new efforts to  
20 change our publications policy, or any of that sort.  
21 We are, I think, as I think everyone should be, duly  
22 concerned about the release of information that comes  
23 out of this agency that may help the Soviets in their  
24 military endeavors, and we do try, as best we can, to  
25 limit anything that might have that kind of application,

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1 but this is, as you all know, it's been an open agency  
2 in the past, and it's our intent to keep it an open  
3 agency.

4 That does run you the risk that, occasionally,  
5 a piece of technology which you would like to see  
6 developed in the United States, as a first endeavor, does  
7 get developed first abroad, including some of our friendly  
8 competitors. And I think that's inevitable, but I think  
9 the benefits, overall, to American industry and to the  
10 economy at large, by keeping an open program, far out-  
11 weigh that.

12 MR. EBERHART: What's the range of possible  
13 futures under this budget plan, and what you expect to  
14 follow for the lunar curatorial facility? The second  
15 question is, I understand that Congress appropriated  
16 \$10 million for VOIR in fiscal '82, and there isn't VOIR  
17 in fiscal '83. What happened to that \$10 million, and  
18 did Congress have a say in it?

19 MR. BEGGS: We have submitted to the Congress  
20 an '82 operating plan which, essentially, is in consonance  
21 with the '83 decisions. The Congress, in its wisdom,  
22 will do what it will do with that budget. I would  
23 expect that we will be in detailed discussions with them  
24 starting next week, as to the decisions that have been  
25 made with respect to this budget, and we will see where

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1 that comes out, but we have this budget, as a point of  
2 departure and as the decision, the policy and the  
3 decisions that have been made relative to that program,  
4 and I will defend it. That's the way it will be.

5 MR. EBERHART: And the lunar curatorial  
6 facility?

7 MR. BEGGS: Who wants to take that? Andy?

8 MR. STOFAN: That was funded under the AR and  
9 DA and the Planetary program. And due to the constraints  
10 placed upon that budget line item, we will either greatly  
11 curtail the activities, or perhaps mothball the facility  
12 for a year, and come back in the future and look for an  
13 enhancement to keep that program going.

14 I think the data analysis and sample analysis  
15 that will be out will be continued, but the facility may  
16 have to be mothballed for a year.

17 MR. DUFF: For those of you who came in late,  
18 the White House has asked us to announce that the  
19 embargo on material for all agencies has been lifted,  
20 and that is, of course, true of the material you got  
21 here today. The 12:00 noon, Monday, embargo has been  
22 lifted by the White House.

23 This conference was monitored by the centers  
24 audio only, for those of you who are here from out of  
25 town. Any last remarks?

1           MR. BEGGS: No, I think not, unless either of  
2 my colleagues has something to say. We thank you very  
3 much, we've enjoyed it.

4           (Whereupon, at 4:00 p.m., the press briefing  
5 with James M. Beggs, Administrator, National Aeronautics  
6 and Space Administration, was concluded.)



# NASA News

National Aeronautics and  
Space Administration

Washington, D.C. 20546  
AC 202 755-8370

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For Release:

UPON RELEASE OF PRESIDENT'S  
BUDGET MESSAGE, 12:00 NOON  
FEBRUARY 8, 1982

## BACKGROUND MATERIAL

### NASA FY 1983 BUDGET BRIEFING

HOLD FOR RELEASE AT 12:00 NOON, EST, MONDAY, FEBRUARY 8, 1982

NOTE: This statement relates to the Fiscal Year 1983 Budget and is subject to the same conditions. There should be no premature release of this statement nor should any of its contents be paraphrased or alluded to in earlier stories. There is a total embargo on the Budget until 12:00 Noon, EST, February 8, 1982, which includes any and all references to any material in the Budget Appendix, or support statements.

# NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

## BUDGET SUMMARY (Thousands of Dollars)

<u>BUDGET PLAN</u>	<u>FY 1981</u>	<u>FY 1982</u>	<u>FY 1983</u>
Research and development.....	4,334,338	4,738,000	5,334,000
Construction of facilities.....	116,950	98,700	100,000
Research and program management....	<u>1,071,064</u>	<u>1,144,700<sup>a/</sup></u>	<u>1,178,900</u>
TOTAL BUDGET PLAN.....	<u>5,522,352</u>	<u>5,981,400</u>	<u>6,612,900</u>
OUTLAYS.....	5,425,557	5,831,000	6,582,000

<sup>a/</sup> Includes increased requirement of \$41.4 million to cover revised salary rates effective in FY 1982.

# NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

## RESEARCH AND DEVELOPMENT PROGRAMS

### BUDGET PLAN (Thousands of Dollars)

<u>Cognizant Office and Program</u>	<u>FY 1981</u>	<u>FY 1982</u>	<u>FY 1983</u>
<u>SPACE TRANSPORTATION SYSTEMS/OPERATIONS</u>	<u>2,728,600</u>	<u>3,090,100</u>	<u>3,467,800</u>
Space Shuttle.....	1,995,000	2,163,000	1,718,000
Space flight operations.....	679,200	895,900	1,707,000
Expendable launch vehicles.....	54,400	31,200	42,800
<u>SPACE SCIENCE AND APPLICATIONS</u>	<u>881,838</u>	<u>901,800</u>	<u>1,002,300</u>
Physics and astronomy.....	323,700	323,500	471,700
Planetary exploration.....	175,600	205,000	154,600
Life sciences.....	42,188	39,500	55,700
Space applications.....	331,550	325,800	316,300
Technology utilization.....	8,800	8,000	4,000
<u>AERONAUTICS AND SPACE TECHNOLOGY</u>	<u>384,000</u>	<u>344,000</u>	<u>355,000</u>
Aeronautics research and technology....	271,400	233,000	232,000
Space research and technology.....	110,700	111,000	123,000
Energy technology.....	1,900	---	---
<u>SPACE TRACKING AND DATA SYSTEMS</u>	<u>339,900</u>	<u>402,100</u>	<u>508,900</u>
TOTAL.....	<u>4,334,338</u>	<u>4,738,000</u>	<u>5,334,000</u>

# NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

## SPACE TRANSPORTATION

### BUDGET PLAN

(Thousands of Dollars)

	<u>FY 1981</u>	<u>FY 1982</u>	<u>FY 1983</u>
<u>SPACE SHUTTLE</u>	<u>1,995,000</u>	<u>2,163,000</u>	<u>1,718,000</u>
DESIGN, DEVELOPMENT, TEST AND EVALUATION..	(973,000)	(898,000)	(---
Orbiter.....	510,500	422,000	---
Main engine.....	134,000	130,000	---
External tanks.....	63,500	56,000	---
Solid rocket boosters.....	50,500	30,000	---
Launch and landing.....	214,500	260,000	---
PRODUCTION.....	(1,022,000)	(1,260,000)	(1,585,500)
Orbiter.....	779,000	860,000	933,500
Main engine.....	112,000	144,000	262,000
Launch and landing.....	33,000	63,000	67,000
Spares and equipment.....	98,000	193,000	323,000
CHANGES/SYSTEMS UPGRADING.....	(---	(---	(72,500)
PERFORMANCE AUGMENTATION.....	(---	(5,000)	(60,000)
<u>SPACE FLIGHT OPERATIONS</u>	<u>679,200</u>	<u>895,900</u>	<u>1,707,000</u>
SPACE TRANSPORTATION SYSTEM OPERATIONS			
CAPABILITY DEVELOPMENT.....	(81,700)	(79,300)	(85,400)
Space transportation system upper stages.....	38,300	23,200	32,000
All other.....	43,400	56,100	53,400
DEVELOPMENT, TEST AND MISSION SUPPORT/ENGINEERING AND TECHNOLOGY BASE.....	(183,500)	(184,000)	(82,400)
ADVANCED PROGRAMS.....	(11,800)	(8,800)	(11,900)
SPACELAB.....	(138,800)	(100,800)	(113,200)
SPACE TRANSPORTATION SYSTEM OPERATIONS....	(263,400)	(523,000)	(1,414,100)
<u>EXPENDABLE LAUNCH VEHICLES</u>	<u>54,400</u>	<u>31,200</u>	<u>42,800</u>
Scout.....	900	800	---
Centaur.....	5,600	---	---
Delta.....	47,900	30,400	42,800
<u>TOTAL SPACE TRANSPORTATION.....</u>	<u>2,728,600</u>	<u>3,090,100</u>	<u>3,467,800</u>

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

SPACE SCIENCE AND APPLICATIONS

BUDGET PLAN  
(Thousands of Dollars)

	<u>FY 1981</u>	<u>FY 1982</u>	<u>FY 1983</u>
<u>PHYSICS AND ASTRONOMY</u>	<u>323,700</u>	<u>323,500</u>	<u>471,700</u>
Space Telescope.....	119,300	121,500	137,500
International solar polar mission development.....	28,000	5,000	21,000
Gamma ray observatory development.....	8,200	8,000	34,500
Shuttle/Spacelab payload development and mission management.....	27,400	40,000	81,400
Explorer development.....	33,300	33,300	34,300
Mission operations and data analysis...	38,900	50,000	85,600
Research and analysis.....	37,700	32,900	39,200
Suborbital programs.....	30,900	32,800	38,200
 <u>PLANETARY EXPLORATION</u>	 <u>175,600</u>	 <u>205,000</u>	 <u>154,600</u>
Galileo development.....	63,100	120,000	92,600
Mission operations and data analysis...	61,800	38,300	26,500
Research and analysis.....	50,700	46,700	35,500
 <u>LIFE SCIENCES</u>	 <u>42,188</u>	 <u>39,500</u>	 <u>55,700</u>
Life sciences flight experiments.....	12,700	14,000	24,000
Research and analysis.....	29,488	25,500	31,700
 <u>SPACE APPLICATIONS</u>	 <u>331,550</u>	 <u>325,800</u>	 <u>316,300</u>
<u>RESOURCE OBSERVATIONS.....</u>	<u>(151,350)</u>	<u>(146,400)</u>	<u>(132,200)</u>
Landsat-D.....	88,500	83,900	61,700
Shuttle/Spacelab payload development.	2,000	3,300	2,800
Geodynamics.....	23,400	22,900	26,200
AgRISTARS.....	21,450	14,000	15,000
Applied research and data analysis and related activities.....	16,000	22,300	26,500
 <u>ENVIRONMENTAL OBSERVATIONS.....</u>	 <u>(104,100)</u>	 <u>(116,500)</u>	 <u>(128,900)</u>
Applied research and data analysis and related activities.....	76,800	77,400	87,200
Shuttle/Spacelab payload development.	1,700	4,100	3,700
Earth radiation budget experiment....	20,300	24,000	24,000
Upper atmospheric research satellite experiments and mission definition.	---	6,000	14,000
Halogen occultation experiment.....	4,500	5,000	---
National oceanic satellite system (NOSS).....	800	---	---

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

SPACE SCIENCE AND APPLICATIONS (Continued)

BUDGET PLAN  
(Thousands of Dollars)

	<u>FY 1981</u>	<u>FY 1982</u>	<u>FY 1983</u>
<u>SPACE APPLICATIONS (Continued)</u>			
APPLICATIONS SYSTEMS.....	(18,100)	(13,200)	(11,700)
TECHNOLOGY TRANSFER.....	(8,100)	(5,000)	(---
MATERIALS PROCESSING IN SPACE.....	(18,700)	(23,800)	(23,600)
Applied research and data analysis....	10,543	15,000	20,300
Shuttle/Spacelab payload development..	8,157	8,800	3,300
COMMUNICATIONS AND INFORMATION SYSTEMS..	(31,200)	(20,900)	(19,900)
Applied research and data analysis and related activities.....	26,400	18,600	16,200
Search and rescue.....	4,800	2,300	3,700
<u>TECHNOLOGY UTILIZATION PROGRAM</u>	<u>8,800</u>	<u>8,000</u>	<u>4,000</u>
<u>TOTAL SPACE SCIENCE AND APPLICATIONS..</u>	<u>881,838</u>	<u>901,800</u>	<u>1,002,300</u>

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

AERONAUTICS AND SPACE TECHNOLOGY

BUDGET PLAN  
(Thousands of Dollars)

	<u>FY 1981</u>	<u>FY 1982</u>	<u>FY 1983</u>
<u>AERONAUTICAL RESEARCH AND TECHNOLOGY</u>	<u>271,400</u>	<u>233,000</u>	<u>232,000</u>
RESEARCH AND TECHNOLOGY BASE.....	(133,847)	(162,500)	(182,000)
SYSTEMS TECHNOLOGY PROGRAMS.....	(137,553)	(70,500)	(50,000)
Aeronautical systems studies.....	3,125	---	---
Materials and structures systems			
technology.....	8,715	6,600	---
Propulsion systems technology.....	4,400	500	---
Avionics and flight control systems			
technology.....	1,200	1,300	---
General aviation systems technology.....	1,045	---	---
Low speed aircraft systems technology...	23,511	25,600	30,000
High speed aircraft systems technology..	16,615	7,700	20,000
Transport aircraft systems technology...	32,746	13,400	---
Advanced propulsion systems technology..	46,196	15,400	---
<u>SPACE RESEARCH AND TECHNOLOGY</u>	<u>110,700</u>	<u>111,000</u>	<u>123,000</u>
RESEARCH AND TECHNOLOGY BASE.....	(100,380)	(105,200)	(115,600)
SYSTEMS TECHNOLOGY PROGRAMS.....	(8,220)	(2,800)	(4,400)
Space systems studies.....	2,083	---	---
Information systems technology.....	4,062	---	---
Spacecraft systems technology.....	2,075	2,800	4,400
STANDARDS AND PRACTICES.....	(2,100)	(3,000)	(3,000)
<u>ENERGY TECHNOLOGY</u>	<u>1,900</u>	<u>---</u>	<u>---</u>
<u>TOTAL AERONAUTICS AND SPACE TECHNOLOGY..</u>	<u>384,000</u>	<u>344,000</u>	<u>355,000</u>

SPACE TRACKING AND DATA SYSTEMS

<u>TRACKING AND DATA ACQUISITION</u>	<u>339,900</u>	<u>402,100</u>	<u>508,900</u>
Operations.....	266,495	300,500	338,200
Systems implementation.....	62,105	89,100	96,000
Advanced systems.....	11,300	12,500	13,400
Tracking and data relay satellite system..	---	---	61,300
<u>TOTAL SPACE TRACKING AND DATA SYSTEMS...</u>	<u>339,900</u>	<u>402,100</u>	<u>508,900</u>

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
FISCAL YEAR 1983 CONSTRUCTION OF FACILITIES PROGRAM

BUDGET PLAN  
(Thousands of Dollars)

PROJECTS BY INSTALLATION

<u>Goddard Space Flight Center</u>	<u>2,840</u>
Rehabilitation and modification of utility systems.....	2,840
<u>Langley Research Center</u>	<u>16,200</u>
Modifications to the 4-by-7 meter low speed tunnel (1212-C).....	7,200
Modifications to upgrade the transonic dynamics tunnel (648).....	9,000
<u>Lewis Research Center</u>	<u>3,915</u>
Modification of rocket engine test facility for altitude testing..	995
Modification to 450 PSI air system in engine research building....	2,920
<u>Wallops Flight Center</u>	<u>2,150</u>
Rehabilitation of airfield.....	2,150
<u>Dryden Flight Research Facility</u>	<u>4,500</u>
Construction of data analysis facility.....	4,500
<u>Space Shuttle Facilities at Various Locations as Follows:</u>	<u>21,405</u>
Modification to solid rocket booster refurbishment and subassembly facilities (KSC).....	1,700
Modification of manufacturing and final assembly facilities for external tanks (MAF).....	17,845
Minor shuttle-unique projects (various locations).....	1,860
<u>Space Shuttle Payload Facilities at Various Locations as Follows:</u>	<u>1,740</u>
Rehabilitation and modification for payload ground support operations (KSC).....	1,740
<u>Repair of Facilities at Various Locations, Not in Excess of \$500,000 per Project.....</u>	<u>15,000</u>
<u>Rehabilitation and Modification of Facilities at Various Locations, Not in Excess of \$500,000 per Project.....</u>	<u>20,000</u>
<u>Minor Construction of New Facilities and Additions to Existing Facilities at Various Locations, Not in Excess of \$250,000 per Project.....</u>	<u>4,000</u>
<u>Facility Planning and Design.....</u>	<u>8,250</u>
<u>TOTAL.....</u>	<u>100,000</u>



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

RESEARCH AND PROGRAM MANAGEMENT

BUDGET PLAN  
(Thousands of Dollars)

<u>INSTALLATION</u>	<u>FY 1981</u>	<u>FY 1982</u>	<u>FY 1983</u>
Johnson Space Center.....	176,051	186,635	192,396
Kennedy Space Center.....	150,200	163,441	169,500
Marshall Space Flight Center.....	164,985	170,840	177,704
National Space Technology Laboratories..	5,506	6,086	6,252
Goddard Space Flight Center.....	162,448	170,066	173,638
Ames Research Center.....	94,843	102,689	104,893
Langley Research Center.....	120,776	127,951	131,303
Lewis Research Center.....	99,886	106,960	110,591
NASA Headquarters.....	96,369	110,032	112,623
TOTAL.....	<u>1,071,064</u>	<u>1,144,700<sup>a/</sup></u>	<u>1,178,900</u>

a/ Includes increased requirement of \$41.4 million to cover revised salary rates effective in FY 1982.

TOTAL NUMBER OF PERMANENT POSITIONS - END OF YEAR

Johnson Space Center.....	3,380	3,346	3,293
Kennedy Space Center.....	2,155	2,133	2,112
Marshall Space Flight Center.....	3,385	3,351	3,285
National Space Technology Laboratories..	105	104	104
Goddard Space Flight Center.....	3,699	3,661	3,623
Ames Research Center.....	2,058	2,037	2,021
Langley Research Center.....	2,895	2,866	2,845
Lewis Research Center.....	2,690	2,663	2,479
NASA Headquarters.....	<u>1,506</u>	<u>1,491</u>	<u>1,457</u>
TOTAL.....	<u>21,873</u>	<u>21,652</u>	<u>21,219</u>